

HANDBOOK OF PHONOLOGICAL DATA
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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395 Kabardian	395 Kabardian	395 Kabardian
395 01 p-aspirated ⁰¹ [p-aspirated-weak] ⁶⁰	17 t/s-laminal-ejective ^{05 06 07}	41 l-fricative-voice-palatalized ¹⁹
395 02 b ⁰⁴	18 q/x-uvular ¹⁰	42 l-fricative-palatalized ¹⁹
395 03 p-ejective ^{05 06}	19 q/x-uvular-labialized ^{09 10 30}	43 l-fricative-ejective-palatalized ^{05 06 19} [t/l-fricative-ejective-palatalized] (free)
395 04 t-laminal-aspirated ^{01 07} [t-laminal-aspirated-weak] ⁶⁰	20 f ¹¹	44 r-trill ^{24 32} [r-trill-voiceless] ⁶⁴
395 05 d-laminal ^{04 07}	21 v ⁰⁴	45 glottal stop
395 06 t-laminal-ejective ^{05 06 07}	22 f-ejective ^{05 06}	46 glottal stop-labialized ^{09 30}
395 07 k-prevelar-aspirated-palatalized ⁰¹ [k-prevelar-aspirated-weak-palatalized] ⁶⁰ [t/s-hacek-palatalized] ⁶¹ (free) [k/x-prevelar-palatalized] ⁶² (free)	23 s-laminal ^{07 11}	47 h-voice [h] ⁶⁵
395 08 g-prevelar-palatalized ⁰⁴ [d/z-hacek-palatalized] ⁶¹ (free)	24 z-laminal ^{04 07}	28 c-fricative-palatoalveolar ^{11 13}
395 09 k-prevelar-ejective-palatalized ^{05 06} [t/s-hacek-ejective-palatalized] ⁶¹ (free)	25 s-hacek ^{11 12}	29 j-fricative-palatoalveolar ^{04 13}
395 10 k-aspirated-labialized ^{01 08 09} [k-aspirated-weak-labialized] ⁶⁰ [k/x-labialized] ⁶² (free)	26 z-hacek ^{04 12}	30 x-prevelar-palatalized ^{11 12 28}
395 11 g-labialized ^{04 08 09}	27 s-hacek-ejective ^{05 06 12}	31 x-labialized ^{08 09 11 17}
395 12 k-ejective-labialized ^{05 06 08 09}	28 c-fricative-palatoalveolar ^{11 13}	32 gamma-prevelar-palatalized ^{04 12 28}
395 13 q/x-uvular-ejective ^{05 06 10}	29 j-fricative-palatoalveolar ^{04 13}	33 x-uvular ¹¹
395 14 q/x-uvular-ejective-labialized ^{05 06 09 10 30}	30 x-prevelar-palatalized ^{11 12 28}	34 x-uvular-labialized ^{09 11 30}
395 15 t/s-laminal ^{07 11}	31 x-labialized ^{08 09 11 17}	35 gamma-uvular ¹⁸
395 16 d/z-laminal ^{04 07}	32 gamma-prevelar-palatalized ^{04 12 28}	36 gamma-uvular-labialized ^{04 09 18 30}
	33 x-uvular ¹¹	37 pharyngeal-voiceless ¹¹
	34 x-uvular-labialized ^{09 11 30}	38 pharyngeal-voice ³¹ (loan)
	35 gamma-uvular ¹⁸	39 m
	36 gamma-uvular-labialized ^{04 09 18 30}	40 n-laminal ⁰⁷
	37 pharyngeal-voiceless ¹¹	
	38 pharyngeal-voice ³¹ (loan)	
	39 m	
	40 n-laminal ⁰⁷	

- 395 \$a Kabardian \$A Adyghe \$A Upper Circassian \$d Caucasian \$e USSR (Caucasus) \$f 275,000 \$g Merritt Ruhlen \$g Gary Holland (review) \$g John Crothers (editor)
- 395 \$a Kuipers, Aert H. \$b 1960 \$c Phoneme and Morpheme in Kabardian \$f (Janua Linguarum, Series Minor, No. 8) \$g The Hague: Mouton \$q informants
- 395 \$a CONSONANTS \$A "Both the voiceless and the voiced consonants...sound somewhat emphatic in Kabardian, and when occurring alone...they often make the impression of seminales." (p.19)
- 395 \$a EJECTIVE CONSONANTS \$A "As glottalic are classed all consonants characterized by a closure of the glottis. Complete closure varies with a kind of glottal trill. In the plosives and fricatives the larynx moves downward during the implosion and adds to the compression of the air by an upward movement during the closure or constriction. The oral and glottal closures are released simultaneously. [Footnote: This distinguishes glottalic consonants from groups with

glottal stop; in the latter case the glottal release comes later than that of the preceding consonant.... Groups of voiceless 'p' followed by 'glottal stop' are distinct from both 'p-ejective' and 'p-ejective.glottal stop.' The consonants 't/s-laminal-ejective, k-prevelar-ejective-palatalized, s-hacek-ejective' often have an element of voicing, especially in the middle of a word. This may be due to the fact that during the downward movement of the larynx the vocal cords are put into vibration by an air-stream which passes from the subglottal to the supraglottal cavities; furthermore, the glottal trill which can replace the complete glottal closure can be voiced." (p.19-20)

- 395 \$a OVER-SHORT VOWELS \$A "In regard to duration the Kabardian vowels fall into three categories. The higher short vowels [phoneme /i-bar/] are ultrashort. They can shrink to a hardly perceptible murmured release of the preceding consonant and even disappear altogether. This happens particularly in longer words, especially - but not exclusively - in more rapid speech. Frequently a sequence of a short high vowel and a consonant is replaced by a syllabic consonant, not only in the case of /m/, /n-laminal/, and /r-trill/ but also with other consonants (e.g. /z-hacek/). The lower short vowels [phoneme /epsilon-dot/] fall from the quantitative point of view between the /i-bar/ vowels and the long vowels.... The long vowels do not make the drawn impression of those in Czech or Hungarian but are rather comparable to the stressed vowels in Russian." (p.24)
- 395 \$a STRESS \$A Stress "falls in general before the last consonant, or consonant group of a word, not counting certain grammatical affixes which do not influence the position of stress. Behind the stress a word-final /i-bar/ is dropped." (p.34)
- 395 \$a SYLLABLE \$A C(C)(C)V(:)(C)(C)(C) \$A See p.28ff.
- 395 \$a VOWELS \$A The vocalic system presented is essentially Kuipers synthesis of previous work. He goes on to claim that the only vowel in the language is /epsilon-dot/. The presence or absence of /i-bar/ can be predicted; thus it need not be specified in the lexicon. The long vowels are derived from sequences of vowel (/epsilon-dot/ or /i-bar/) plus laryngeal (/h/, /w/, /yod/). For /i-bar/: "The short high vowels are not distinctive on the level of the morpheme. Their presence or absence depends partly on phonetic criteria and partly on syntagmatic criteria...; difficulties are eliminated by regarding sequences of a consonant plus a short high vowel as unit phonemes, which have vowelless implosive variants. These variants are in part of the cases automatic and in part of the cases distinctive on the syntagmatic level; in these cases, then, there is a juncture distinction." (p.49) For /a-front-long/: "In the above paragraph it was shown that (a) phonetic facts (b) phonemic patterning (c) the behavior of stress and (d) morphophonemic considerations all converge to the analysis of syllable initial /a-front-long/ as a sequence of /h.a/ and of /a-front-long/ in other positions as a sequence of /a.h/." (p.38) For other /V-long/ "the sequences [i-bar.yod], [epsilon-dot.yod], [i-bar.w], [epsilon-dot.w], when belonging to the same syllable (i.e. when not followed by a vowel) are produced as /i-long/, /e-mid-long/, /u-long/, /o-mid-long/ respectively.... These vowels are often pronounced slightly diphthongal, especially at the end of the word." (p.23) However, "in his latest work on Kabardian (1948) Yakovlev operates with five long vowel phonemes.... This is probably dictated by practical purposes and may even be theoretically justified in view of the large number of Russian loans that are being adopted into the language." (p.39n) Since these phonemic "diphthongs" are actually monophthongs, or only "slightly diphthongal" whenever they occur within a syllable, they are analyzed here as independent long vowel phonemes. (p.23) [JHC]
- 395 01 \$A "The voiceless plosives are in prevocalic position aspirated fortes.... At the end of a word the aspiration is less strong and can be altogether absent in /p-aspirated/ and /t-laminal-aspirated/." (p.17)
- 395 04 \$A "The voiced consonants are lenes in comparison to the voiceless ones.... In the speech of some Kabardians they are replaced by voiceless lenes." (p.19)
- 395 05 \$A "The impression of voicedness in [glottalic] consonants is strengthened by the fact that they are expiratory lenes. But in /f-ejective/ and /l-fricative-ejective-palatalized/ the muscular tension is very strong." (p.20)
- 395 06 \$A For the ejectives "the oral and glottal closures are released simultaneously." (p.19)
- 395 07 \$A "The dental consonants are all articulated with the front of the dorsum; the tongue-tip is pressed against the back of the lower front teeth." (p.20)
- 395 08 \$A "The labialized palatovelars are articulated somewhat farther back and do not have the advanced variants that are characteristic of their palatalized correlates." (p.21)
- 395 09 \$A "The term 'labialization' refers to strong, narrow lip-rounding (as distinct from the slight, wide rounding in the /s-hacek/ and /x-prevelar-palatalized/ series).... In all the labialized consonants the moment of labialization extends from the implosion to the release, c.q. in both directions beyond these limits, affecting neighboring vowels."
- 395 10 \$A Voiceless uvular plosives are "strong affricates." (p.21)

- 395 11 \$A "The voiceless fricatives and /t/s-laminal/ are usually unaspirated; only in emphatic speech can their explosive moment be accompanied by an audible glottal friction." (p.19)
- 395 12 \$A "The palatoalveolars [ʃs-hacek], etc.] are characterized by a slight, wide rounding of the lips; their timbre lies between that of English 'sh' and Russian [s-hacek]." (p.20) The same lip position characterizes /x-prevelar-palatalized/ and /gamma-prevelar-palatalized/. (p.21)
- 395 13 \$A Kuipers classes the palatoalveolar ([c-fricative-palatoalveolar], etc.) fricatives as "alveopalatal": "Acoustically they fall between the dental and palatoalveolar fricatives." They are "dorsal and are produced with a slight velarization or pharyngealization." Kuipers implies that they have the same tongue tip position as the dentals. (p.20)
- 395 17 \$A "In /x-labialized/ there is sometimes a clearly audible bilabial friction." (p.21)
- 395 18 \$A "The voiced fricatives /gamma-uvular/ and /gamma-uvular-labialized/ have a rather wide aperture and vary with weakly rolled uvular trills, and occasionally they even have the character of glides." (p.21)
- 395 19 \$A "The laterals are unilateral. They are produced by moving the tongue-mass upward; the edges of the tongue form a complete closure against the back of the upper teeth except for one narrow opening near the molars, on the right side with all my informants. These sounds have a strongly palatal timbre.... They never have the character of liquids but are always fricatives, except that the glottal lateral often is an affricate." (p.20-21)
- 395 24 \$A "/r-trill/ stands apart [in Kabardian] as the only phoneme that is articulated with the tip of the tongue. It often consists of but a single tap." (p.22)
- 395 25 \$A [u-dot, o-open-dot] are "central or back depending on what precedes, providing the preceding consonant is not labialized." (p.22)
- 395 26 \$A "The phonemes /w/ and /yod/ are facultatively accompanied by a slight glottal friction, especially in word-initial position." (p.22)
- 395 27 \$A "/e-mid-long/ and /o-mid-long/ [are] somewhat closer than short [epsilon] and [o-open]." (p.23)
- 395 28 \$A /x-prevelar-palatalized/ and /gamma-prevelar-palatalized/ are assumed here to be prevelar, like the corresponding plosives, though Kuipers does not say so explicitly. (See p.21.)
- 395 30 \$A "Before and in the stressed syllable all consonants are automatically labialized when followed by /u-long/ and /o-mid-long/.... In these cases the distinction between plain and labialized uvulars and laryngeals is neutralized. Examples are rare." (p.24, n)
- 395 31 \$A "[pharyngeal-voice] is found only in a few Arabic loanwords and is replaced in the speech of most Kabardians by [pharyngeal-voiceless]." (p.21)
- 395 32 \$A /r-trill/ is "not found at the beginning of a word." (p.22)
- 395 33 \$A /a-front-long/ is the only vowel found in word-initial; in this position it can be accompanied by a slight glottal friction [preceding it]." (p.24)
- 395 34 \$A Kuipers uses the symbol "oe digraph" for /epsilon-dot/.
- 395 35 \$A Kuipers uses the symbol "a" for [alpha-unrounded]. It is possible that something like [care] is intended, since all other members of this phoneme are given symbols for lower-mid vowels. However the discussion on p.32 strongly suggests a low vowel. [GH]
- 395 60 \$A The aspirated stops are weakly aspirated "at the end of a word." (p.117)
- 395 61 \$A "The palatalized palatovelar plosives vary in the speech of many Kabardians from prevelar stops to palatoalveolar affricates; other individuals limit themselves to either one of these two series...." (p.21)
- 395 62 \$A /k-prevelar-aspirated-palatalized/ can have a clearly audible "ich-laut," [k/x-palatalized]. This statement seems also to apply to /k-aspirated-labialized/. (p.17)
- 395 64 \$A /r-trill/ is voiceless word finally and before voiceless or ejective consonants. (p.22)
- 395 65 \$A /h-voice/ is voiceless "immediately after voiceless and glottalic [i.e. ejective] consonants." (p.21-22)
- 395 66 \$A /a-front-long/ is realized as [alpha-unrounded-long] "in the neighborhood of uvulars and pharyngeals." (p.24)
- 395 67 \$A /i-bar, epsilon-dot/ are realized as [i, epsilon] "after laterals, palatalized palatovelars and /yod/." (p.22)

- 395 68 \$A /i-bar, epsilon-dot/ are realized as [i-trema, alpha-unrounded] "after plain [i.e. non-labialized] uvulars, pharyngeals and /h-voice, glottal stop/ (after the latter two consonants central vowels are also heard)." (p.22)
- 395 69 \$A /i-bar, epsilon-dot/ are realized as [u, o-open] "after labialized palatovelars, uvulars and laryngeals." The same allophones occur "half-rounded" (not distinguished in the Archive analysis) before labialized consonants when the preceding consonant is uvular or pharyngeal. (p.22)
- 395 70 \$A /i-bar, epsilon-dot/ are realized as [u-dot, o-open-dot] "before labialized consonants." These allophones are "half-rounded." (p.22)